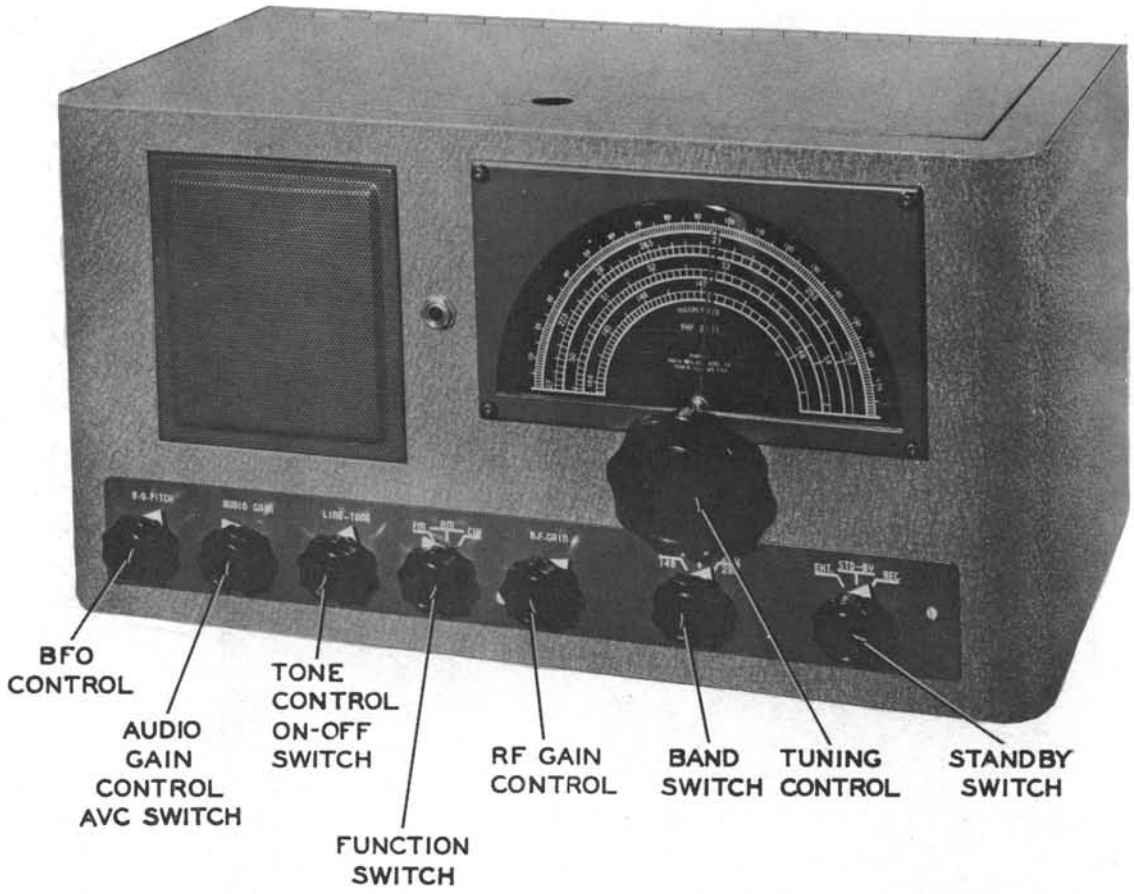
RME
MODEL VHF 2-11



RME MODEL VHF 2-11

TRADE NAME	RME, Model VHF 2-11
MANUFACTURER	Radio MFG. Engineers, Inc., 300-306 First Ave., Peoria, Illinois
TYPE SET	AC Operated Superheterodyne Communications Receiver
TUBES(THIRTEEN)	Types 6AK5 RF Amp., 12AT7 1st Converter, 6BE6 2nd Converter, 6BJ6 1st IF Amp., 6BJ6 2nd IF Amp., 6AL5 DET-AVC-Noise Limiter, 6BJ6 BFO, 6BJ6 Limiter, 6AL5 Ratio Det., 6AU6 or 6AJ6 AF Amp., 6G6G Power Output, VR150 Voltage Regulator, 5Y3GT Rectifier
POWER SUPPLY	110-120 Volts AC RATING .69 Amp. @ 117 Volts AC
TUNING RANGE	SW #1 27.0-29.7MC SW #2 50-54MC SW #3 144-148MC

HOWARD W. SAMS & CO., INC. • Indianapolis 7, Indiana

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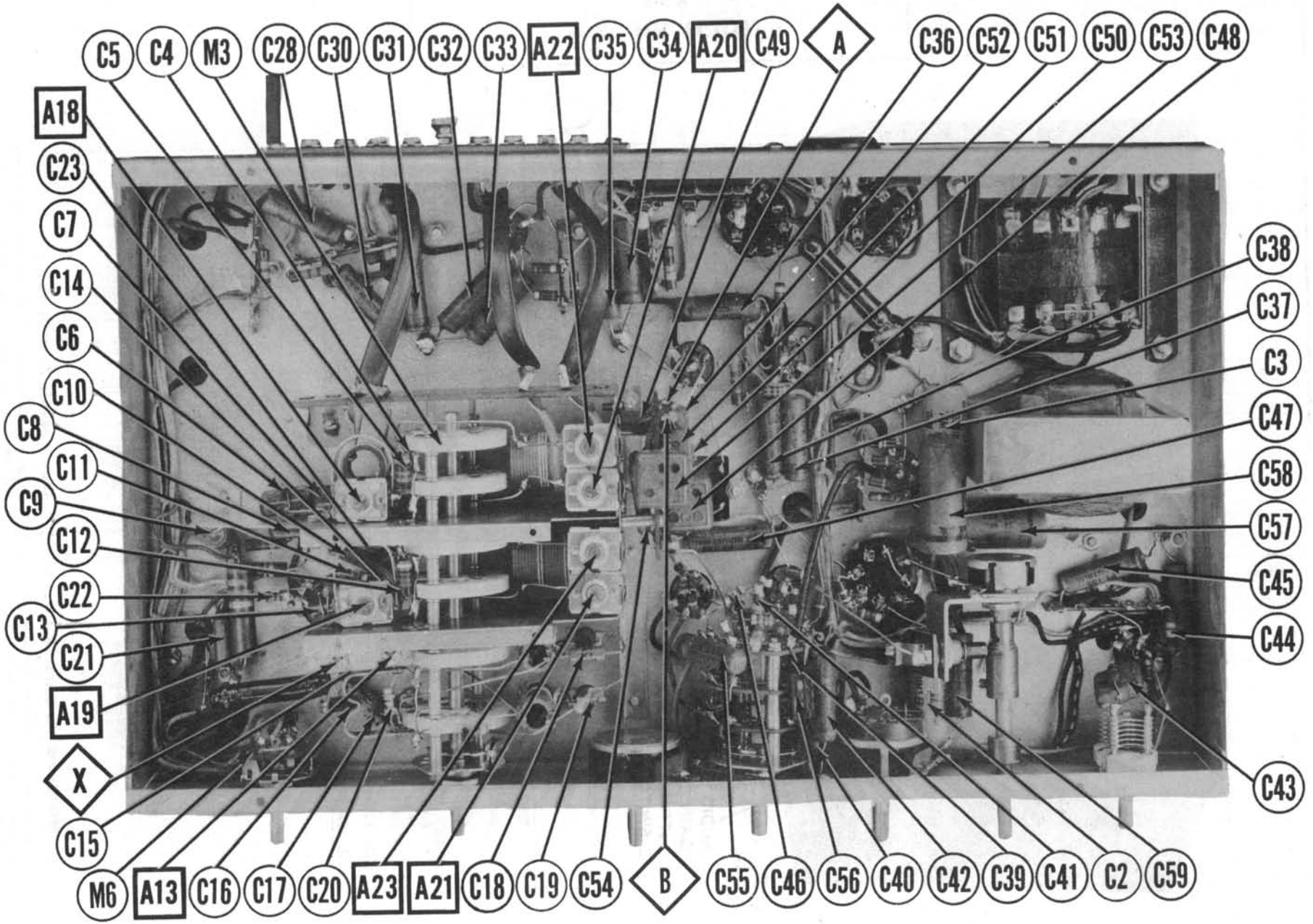

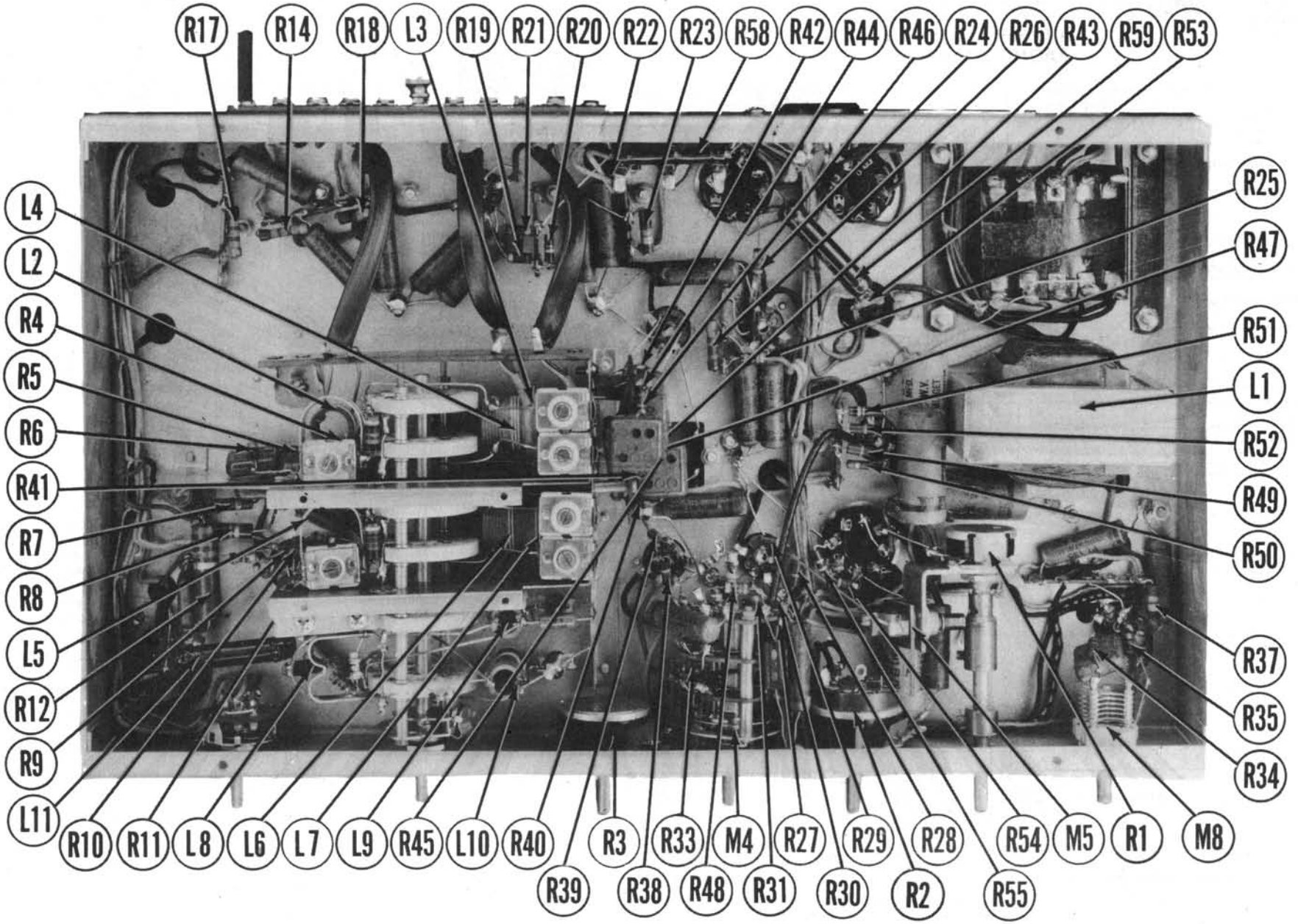

PARTS LIST AND DESCRIPTIONS

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA: RME PART No.	REPLACEMENT DATA: STANDARD REPLACEMENT	RMA BASE TYPE	NOTES
V1	RF Amp.	6AK5	6AK5	7BD	
V2	1st Converter	12AT7	12AT7	9A	
V3	2nd Converter	6BE6	6BE6	7CH	
V4	1st IF Amp.	6BJ6	6BJ6	7CM	
V5	2nd IF Amp.	6BJ6	6BJ6	7CM	
V6	DET.-AVC-Noise Limiter	6AL5	6AL5	6BT	
V7	BFO	6BJ6	6BJ6	7CM	
V8	Limiter	6BJ6	6BJ6	7CM	
V9	Ratio Det.	6AL5	6AL5	6BT	
V10A	AF Amp.	6AU6	6AU6	7BK	
B	AF Amp.	6AJ6	6AJ6		
V11	Power Output	6Q6G	6Q6G	7S	
V12	Voltage Regulator	0D3/VR-150	0D3/VR-150	4AJ	
V13	Rectifier	5Y3GT	5Y3GT	5T	

CAPACITORS

Capacity values given in the rating column are in mfd. for Electrolytic and Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING: CAP.	RATING: VOLT	REPLACEMENT DATA: RME PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	SPRAGUE PART No.	IDENTIFICATION CODES AND INSTALLATION NOTES
C1A	15	450		AF333J	UP15D145		EL-344	▲ Filter
B	15	450						■ Filter
C	10	450						AF Amp. Decoupling
C2	20	25		PRS25/25	BR202A		TA-25	Output Cath. Bypass
C3	20	25		PRS25/25	BR202A		TA-25	AF Amp. Cath. Bypass
C4	5			1468-000005	5W5V5	NPOK-5	MS-55	RF Coupling
C5	15					GP1K-15	MS-415	Fixed Padder
C6	1000	500		1468-001	1W5D1	GP2L-001	1FM-21	RF Cathode Bypass
C7	1000	500		1468-001	1W5D1	GP2L-001	1FM-21	RF Cathode Bypass
C8	1000	500		1468-001	1W5D1	GP2L-001	1FM-21	RF Screen Bypass
C9	.01	600		P688-01	GT6S1	GP2-335-01	TM-11	RF Bypass
C10	100	500		1468-0001	5W5T1	GP1K-100	1FM-31	RF Coupling
C11	25			1468-000025	5W5Q25	GP1K-25	MS-425	RF Coupling Note 1
C12	15					GP1K-15	MS-415	Fixed Padder
C13	1000	500		1468-001	1W5D1	GP2L-001	1FM-21	1st Conv. Cathode Bypass
C14	1.5					NPOK-1.5		Osc. Coupling
C15	25			1468-000025	5W5Q25	GP1K-25	MS-425	Osc. Grid Cap.
C16	25			1468-000025	5W5Q25	GP1K-25	MS-425	Osc. Feedback
C17	5			1469-000005	5R5V5	NPOK-5	MS-55	Fixed Trimmer
C18	15					GP1K-15	MS-415	Fixed Trimmer
C19	12					GP1K-12		Fixed Trimmer
C20	25			1469-000025	5R5Q25	NPOL-25	MS-425	Fixed Trimmer
C21	1000	500		1468-001	1W5D1	GP2L-001	1FM-21	Osc. Plate Decoupling
C22	25			1469-000025	5R5Q25	NPOL-25	MS-425	Fixed Trimmer Note 1
C23	1000	500		1468-001	1W5D1	GP2L-001	1FM-21	RF Filament Bypass Note 1
C24	.01	600		P688-01	GT6S1	GP2-335-01	TM-11	2nd Conv. Cath. Bypass
C25	25			1469-000025	5R5Q25	NPOL-25	MS-425	Fixed Trimmer
C26	.01	600		P688-01	GT6S1	GP2-335-01	TM-11	Osc. Anode Bypass
C27	.01	600		P688-01	GT6S1	GP2-335-01	TM-11	Osc. Anode Decoupling
C28	.01	600		P688-01	GT6S1	GP2-335-01	TM-11	2nd Conv. Fil. Bypass
C29	1000	500		1468-001	1W5D1	GP2L-001	1FM-21	2nd Conv. Fil. Bypass
C30	.01	600		P688-01	GT6S1	GP2-335-01	TM-11	2nd Conv. Plate Decoupling
C31	.01	600		P688-01	GT6S1	GP2-335-01	TM-11	AVC Filter
C32	.01	600		P688-01	GT6S1	GP2-335-01	TM-11	1st IF Cath. Bypass
C33	.01	600		P688-01	GT6S1	GP2-335-01	TM-11	1st IF Screen Bypass
C34	.01	600		P688-01	GT6S1	GP2-335-01	TM-11	1st IF Plate Decoupling
C35	.01	600		P688-01	GT6S1	GP2-335-01	TM-11	AVC Filter
C36	.01	600		P688-01	GT6S1	GP2-335-01	TM-11	2nd IF Cath. Bypass
C37	.01	600		P688-01	GT6S1	GP2-335-01	TM-11	2nd IF Screen Bypass
C38	.01	600		P688-01	GT6S1	GP2-335-01	TM-11	2nd IF Plate Decoupling
C39	250	500		1468-00025	5W5T25	GP2K-250	1FM-325	Diode RF Filter
C40	.01	600		P688-01	GT6S1	GP2-335-01	TM-11	AVC Filter
C41	5			1468-000005	5W5V5	NPOK-5	MS-55	BFO Coupling
C42	.01	600		P688-01	GT6S1	GP2-335-01	TM-11	AVC Filter
C43	1000	500		1468-001	1W5D1	GP2L-001	1FM-21	Osc. Grid Cap.
C44	.01	600		P688-01	GT6S1	GP2-335-01	TM-11	BFO Screen Bypass
C45	.01	600		P688-01	GT6S1	GP2-335-01	TM-11	DC Blocking

PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

ITEM No.	RATING: RESISTANCE	RATING: WATTS	REPLACEMENT DATA: RME PART No.	REPLACEMENT DATA: IRC PART No.	IDENTIFICATION CODES
R36	2200Ω	½		BTS-2200	BFO Screen See Note
R37	10KΩ	½		BTS-10K	BFO Plate
R38	220KΩ	½		BTS-220K	Limiter Grid
R39	220KΩ	½		BTS-220K	Limiter Screen
R40	100KΩ	½		BTS-100K	Limiter Plate Decoupling
R41	1000Ω	½		BTS-1000	Balancing
R42	10KΩ	½		BTS-10K	Balancing
R43	10KΩ	½		BTS-10K	Balancing
R44	68KΩ	½		BTS-68K	Disc. Diode Load
R45	68KΩ	½		BTS-68K	Disc. Diode Load
R46	47KΩ	½		BTS-47K	De-emphasis
R47	100KΩ	½		BTS-100K	Tone Compensation
R48	47KΩ	½		BTS-47K	Tone Compensation
R49	220KΩ	½		BTS-220K	AF Grid
R50	820Ω	½		BTS-820	AF Cathode
R51	100KΩ	½		BTS-100K	AF Plate
R52	220KΩ	½		BTS-220K	AF Screen
R53	22KΩ	½		BTS-22K	Filter
R54	470Ω	½		BTS-470	Output Cathode
R55	39Ω	½		BW-½-39	Output Cathode
R56	4300Ω	2		BT-2-4700	Tone Compensation
R57	1000Ω	½		BTS-1000	Tone Compensation
R58A	6800Ω	10		AB-7000	Bleeder Wire Wound
B	8200Ω			AB-8000	Bleeder Wire Wound
R59	3500Ω	10		AB-3500	Filter Wire Wound

Note: Not used in all models.

TRANSFORMER (POWER)

ITEM No.	RATING: PRI.	RATING: SEC. 1	RATING: SEC. 2	RATING: SEC. 3	REPLACEMENT DATA: RME PART No.	REPLACEMENT DATA: STANCOR PART No.	REPLACEMENT DATA: MERIT PART No.	REPLACEMENT DATA: CHICAGO PART No.
T1	117VAC @ .69A	570VCT .098ADC	5VAC @ 2A	6.3VAC @ 2.7A		P-6013 ‡	P-2953 ‡	PH-90 ‡

‡ Add series resistor to reduce plate voltage.

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING: IMPEDANCE PRI.	RATING: IMPEDANCE SEC.	RATING: DC RES. PRI.	RATING: DC RES. SEC.	REPLACEMENT DATA: RME PART No.	REPLACEMENT DATA: STANCOR PART No.	REPLACEMENT DATA: MERIT PART No.	REPLACEMENT DATA: CHICAGO PART No.	INSTALLATION NOTES
T2	8KΩ	3.1Ω	600Ω	.5Ω		A-3879 #	A-2932 #	RO-301 #	# Bend mounting tabs down and mount on original bracket.

SPEAKER

ITEM No.	RATINGS		REPLACEMENT DATA: RME PART No.	REPLACEMENT DATA: JENSEN PART No.	REPLACEMENT DATA: QUAM PART No.	INSTALLATION NOTES
	FIELD	V. C. IMP.		ST-105 §		
SP1	PM	3.1Ω		MOD.P5-X	5A1 §	§ Remount output transformer.
	CONE DIA.	V. C. DIA.				
SP2	4 3/4"	9/16"				

FILTER CHOKE

ITEM No.	RATINGS: TOTAL DIRECT CURRENT	RATINGS: D. C. RESISTANCE	RATINGS: INDUCTANCE (0 CURRENT 1000 ~)	REPLACEMENT DATA: RME PART No.	REPLACEMENT DATA: STANCOR PART No.	REPLACEMENT DATA: MERIT PART No.	REPLACEMENT DATA: CHICAGO PART No.	INSTALLATION NOTES
L1	.098A	220Ω	10Henries		C-1001	C-2993	R-885	

PARTS LIST AND DESCRIPTIONS (Continued)

CAPACITORS

Capacity values given in the rating column are in mfd. for Electrolytic and Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING CAP.	RATING VOLT	REPLACEMENT DATA RME PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	SPRAGUE PART No.	IDENTIFICATION CODES AND INSTALLATION NOTES
C46	25			1468-000025	5W5T25	GP1K-25	MS-425	IF Coupling
C47	.01	600		P688-01	GT6S1	GP2-335-01	TM-11	Limiter Screen Bypass
C48	1000			1468-001	1W5D1	GP2L-001	1FM-21	Limiter Plate Dec.
C49	50	500		1468-00005	5W5Q5	GP1K-50	1FM-45	Diode Load Cap. See Note 2
C50	50	500		1468-00005	5W5Q5	GP1K-50	1FM-45	Diode Load Cap. See Note 2
C51	500	500		1468-0065	5W5T5	GP2K-500	1FM-35	RF Bypass
C52	.1	100		P288-1	GT2P1		68P17	Stabilizing Cap.
C53	1000	500		1468-001	1W5D1	GP2L-001	1FM-21	De-emphasis
C54	.1	100		P288-1	GT2P1		68P17	Audio Coupling
C55	.01	600		P688-01	GT6S1	GP2-335-01	TM-11	Audio Coupling
C56	250	500		1468-00025	5W5T25	GP2K-250	1FM-325	AF Amp. Grid Bypass
C57	.1	600		P688-1	GT6P1		TM-1	AF Amp. Screen Bypass
C58	.1	600		P688-1	GT6P1		TM-1	Audio Coupling
C59	.01	600		P688-01	GT6S1	GP2-335-01	TM-11	Tone Comp.
C60	.01	600		P688-01	GT6S1	GP2-335-01	TM-11	Audio Coupling

Note 1. Not used in all models.
Note 2. When either items C49 or C50 are replaced, replace both with capacitors of equal value.

CONTROLS

ITEM No.	RATING RESISTANCE	RATING WATTS	REPLACEMENT DATA RME PART No.	IRC PART No.	CLAROSTAT PART No.	INSTALLATION NOTES
R1	500KΩ	½		Q11-133	M-58-Z	Volume control
R2A	1 Meg.	½		Q13-137	M-63-Z	Tone control
B	Switch			76-2	SW-A2	Attach to R2A per instructions
R3	30KΩ	½		Q11-121	M-42-S	RF gain control

RESISTORS

ITEM No.	RATING RESISTANCE	RATING WATTS	REPLACEMENT DATA RME PART No.	IRC PART No.	IDENTIFICATION CODES
R4	15Ω	½			Parasitic Supp.
R5	100KΩ	½		BTS-100K	RF Grid
R6	220Ω	½		BW-½-220	RF Cathode
R7	15KΩ	½		BTS-15K	RF Screen
R8	18KΩ	1		BTA-18K	RF Plate
R9	100KΩ	½		BTS-100K	1st Conv. Grid
R10	2200Ω	½		BTS-2200	1st Conv. Cathode
R11	4700Ω	½		BTS-4700	1st Osc. Grid
R12	18KΩ	2		BT-2-18K	1st Osc. Plate
R13	1000Ω	½		BTS-1000	2nd Conv. Cathode
R14	2200Ω	½		BTS-2200	2nd Conv. Plate Decoupling
R15	22KΩ	½		BTS-22K	2nd Osc. Grid
R16	68KΩ	½		BTS-68K	2nd Osc. Anode
R17	2200Ω	½		BTS-2200	2nd Osc. Anode Decoupling
R18	10KΩ	½		BTS-10K	AVC Network
R19	470Ω	½		BTS-470	1st IF Cathode
R20	100KΩ	½		BTS-100K	Voltage Divider
R21	68KΩ	½		BTS-68K	1st IF Screen
R22	2200Ω	½		BTS-2200	1st IF Plate Decoupling
R23	10KΩ	½		BTS-10K	AVC Network
R24	470Ω	½		BTS-470	2nd IF Cathode
R25	68KΩ	½		BTS-68K	2nd IF Screen
R26	2200Ω	½		BTS-2200	2nd IF Plate Decoupling
R27	1 Meg.	½		BTS-1 Meg.	AVC Network
R28	220KΩ	½		BTS-220K	Diode Load
R29	220KΩ	½		BTS-220K	Diode Load
R30	1 Meg.	½		BTS-1 Meg.	AVC Network
R31	680KΩ	½		BTS-680K	AVC Network
R32	10KΩ	½		BTS-10K	AVC Network See Note
R33	470Ω	½		BTS-470	Voltage Divider
R34	47KΩ	½		BTS-47K	BFO Grid
R35	47KΩ	½		BTS-47K	BFO Cathode

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PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF)

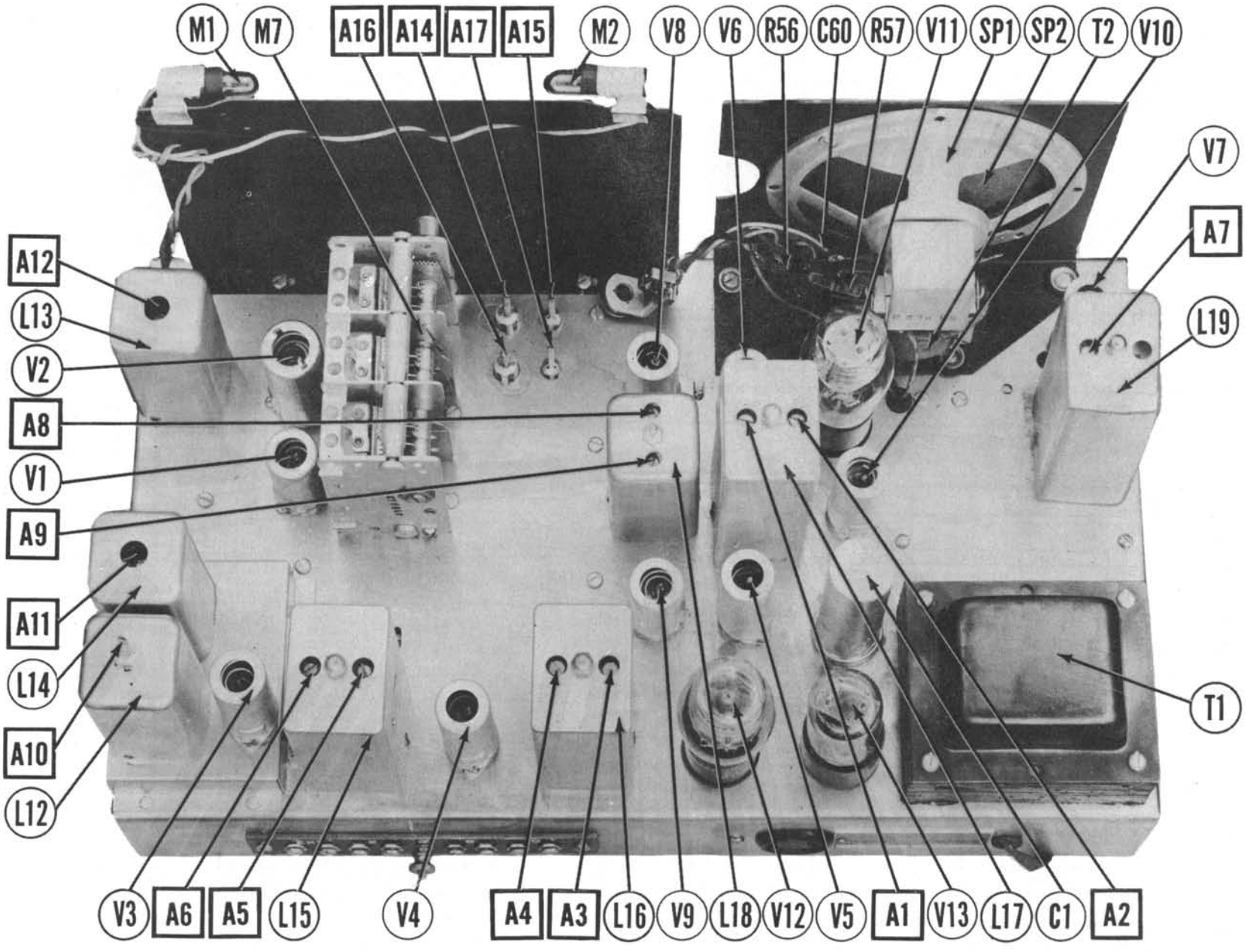
ITEM No.	USE	DC RES. PRI.	DC RES. SEC.	REPLACEMENT DATA RME PART No.	REPLACEMENT DATA MEISSNER PART No.	NOTES
L2	RF Coil	0Ω	0Ω			2 meters
L3	RF Coil	0Ω	0Ω			10 meters
L4	RF Coil	0Ω	0Ω			6 meters
L5	Mixer Grid	0Ω				2 meters
L6	Mixer Grid	0Ω				10 meters
L7	Mixer Grid	0Ω				6 meters
L8	Osc. Coil	0Ω				2 meters
L9	Osc. Coil	0Ω				10 meters
L10	Osc. Coil	0Ω				6 meters
L11	RF Choke	.1Ω				
L12	2nd Osc. Coil	0Ω				
L13	1st 6.95MC IF	.1Ω	0Ω			
L14	2nd 6.95MC IF	.1Ω	0Ω			
L15	1st 455KC IF	9Ω	3.5Ω			
L16	2nd 455KC IF	10.5Ω	3.5Ω			
L17	3rd 455KC IF	9Ω	9Ω			
L18	Ratio Det. Transformer	20Ω	20Ω			
L19	BFO Coil	3Ω				

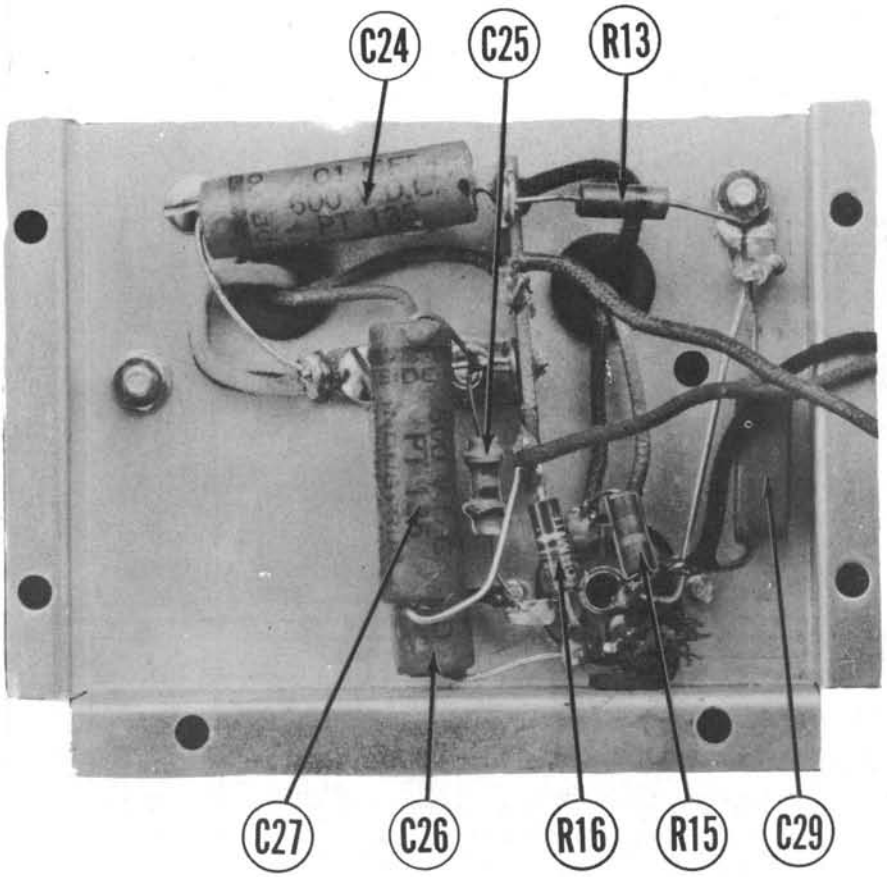
DIAL LIGHTS

ITEM No.	BASE TYPE	VOLTS	AMPS.	BEAD COLOR	REPLACEMENT DATA RME PART No.	REPLACEMENT DATA	NOTES
M1	Bayonet	6-8	.15	Brown			Type #47
M2	Bayonet	6-8	.15	Brown			Type #47

MISCELLANEOUS

ITEM No.	PART NAME	RME PART No.	NOTES
M3	Switch		Band
M4	Switch		Function
M5	Switch		ANL
M6	Switch		Standby-EXT.-INT.
M7	3 Gang Var. Cap.		Main Tuning
M8	Variable Cap.		BFO





INPUT

The VHF 2-11 is provided with separate antenna connection for each frequency band. On the terminal strip on the rear apron are four sets of two terminals each. These terminals are marked "2" for the 144-148 mc band: "6" for the 50-54 mc band, and "10" for the 27-29.7 mc band. The input impedance for each band has been designed to be 300 ohms. The remaining two terminals marked "EXT" connect to the 6.95 mc portion of the receiver when the standby switch is turned to "EXT". These terminals are provided for the owner who also has an RME HF 10-20 Converter (or a VHF-152). The output cable of an RME 10-20 may be connected to the terminal and with the standby switch turned to "EXT" the 10-20 then may be used in the same manner as when connected to a receiver. All controls such as manual gain, BFO, noise limiter, etc. operated in the same manner as when using the internal RF portion of the VHF 2-11. An RME 10-20 may require some recalibration when used in this manner.

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

For best results it is recommended that this receiver be aligned with the chassis in place in the cabinet. It will be necessary to remove the chassis for "Ratio-detector alignment."

If the "R" meter attachment is available, it may be used as an indicator in place of the output meter listed in the alignment table.

It should be noted that there are two converter tubes; make sure signal is fed into the proper tube.

455KC IF ALIGNMENT

If the "R" meter is used, turn the function switch to "AM" (center position). If an output meter is used, turn the function switch to "CW" (maximum clockwise) and remove the BFO tube (V7); this will disable the AVC circuit.

Turn the RF gain control to maximum clockwise.

Set the "EXT.-STD. BY-REC." switch to "REC" (maximum clockwise).

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1.	Direct	High side to ungrounded tube shield floating over converter tube (V3). Low side to chassis.	455KC (400∿ Mod.)	Any	Tuning gang fully open	Across voice coil	A1,A2, A3,A4, A5,A6	Adjust for maximum output.

BFO ALIGNMENT

Set the BFO tuner capacitor at 1/2 maximum capacity. Be sure this position is retained when the knob is replaced with the pointer pointing straight up.

Do not move the signal generator from the setting used during 455KC IF alignment.

Replace the BFO tube (V7), if it was removed during IF alignment.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
2.	Direct	High side to ungrounded tube shield floating over converter tube (V3). Low side to chassis.	Use the same freq. as step 1. (Unmod.)	Any	Gang fully open	Across voice coil	A7	Adjust for zero beat in the speaker.

RATIO DETECTOR ALIGNMENT

If the receiver is being aligned with the chassis in the cabinet, it will be necessary to remove fthe chassis for this step only.

Turn the function switch to "FM" (maximum counter-clockwise).

A VTVM is required to align the ratio detector.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
3.	Direct	High side to ungrounded tube shield floating over converter tube (V3). Low side to chassis.	Use the same freq. as step 1. (Unmod.)	Any	Gang fully open	DC Probe to Point (A) Common to chassis.	A8	Adjust for maximum deflection.
4.	Direct	"	"	"	"	DC Probe to Point (B) Common to chassis.	A9	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.

SECOND CONVERTER ALIGNMENT

Turn the "EXT.-STD. BY-REC" switch to "EXT".

Turn the function switch to "CW".

Make sure the BFO pitch control is set to EXACTLY the same position used during step 2.

If necessary, feed a 455KC unmodulated signal into the second converter and adjust the BFO pitch control for zero beat. Do not move the BFO pitch control during this step.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
5.	Direct	Across "Ext." terminals on rear of chassis.	6.95MC (Unmod.)	Any	Gang fully open	Across voice coil	A10	Adjust for zero beat in the speaker.

6.95MC IF ALIGNMENT

Turn the "EXT.-STD. BY-REC." switch to "REC". (maximum clockwise).

If the "R" meter is being used for an indicator, set the function switch to "AM". If an output meter is used set the function switch to "CW" and remove V7.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
6.	.01MFD	High side to stator of center section of tuning gang. Low side to chassis.	6.95MC (400∿ Mod.)	Any	Gang fully open	Across voice coil	A11, A12	Adjust for maximum output.

OSCILLATOR ALIGNMENT

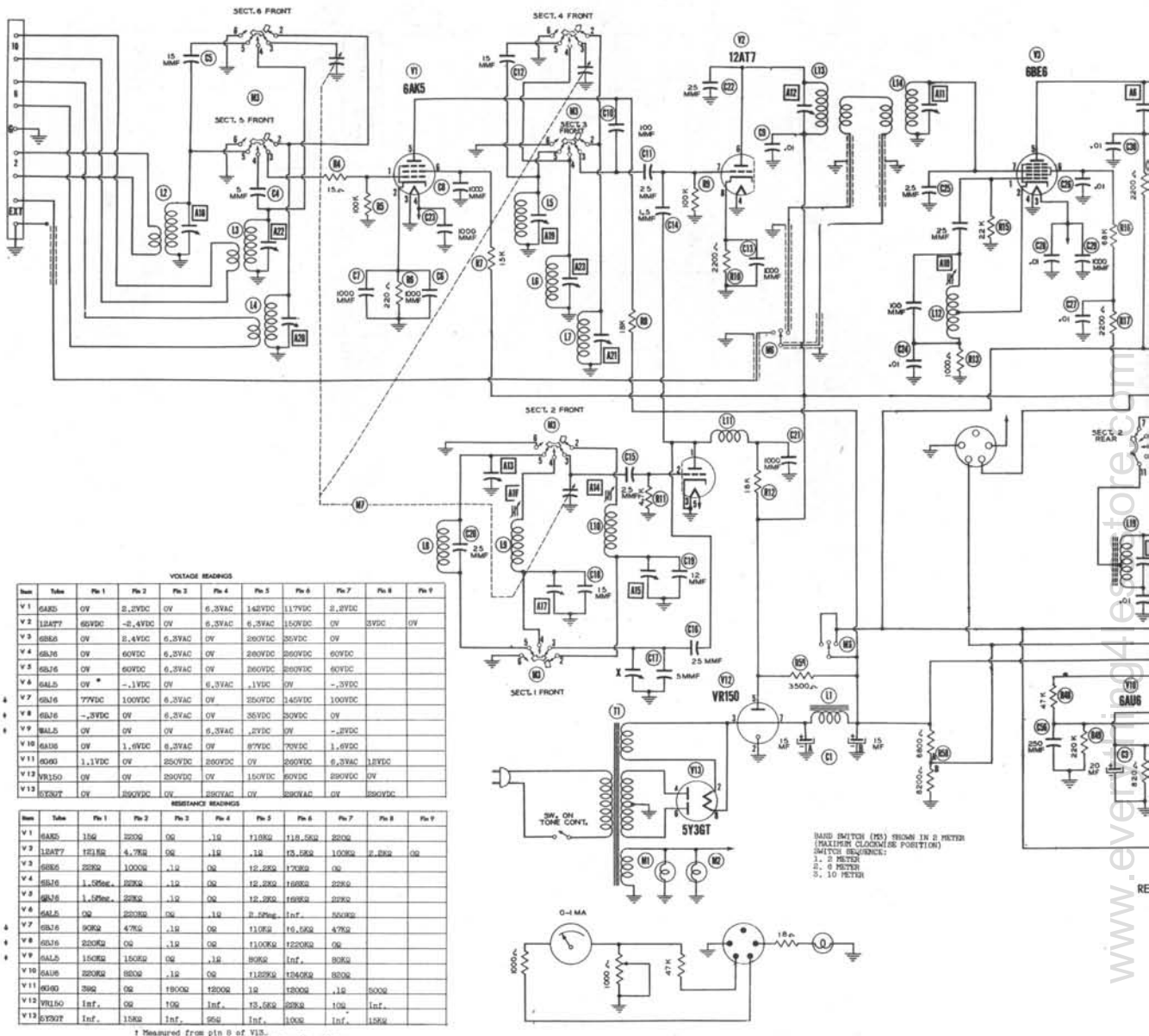
The oscillator adjustments in this receiver are very stable; oscillator alignment should not be attempted unless the set is definitely known to be off calibration.

If the calibration seems to be off a comparable amount on all three bands, oscillator alignment may be accomplished in one step, using the trimmer "X". It should be noted that this is an overall oscillator adjustment and should not be adjusted for any individual band. If a small calibration error on the 27-29.7MC or 50-54MC band is to be corrected, the slug adjustment should be used.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
7.	300Ω carbon res.	Across "2" ant. terminals with 300Ω in series with high side of generator output.	144MC (400∿ Mod.)	144-148 (maximum counter clockwise)	144MC	Across voice coil	A13	Adjust for maximum output.
8.	"	Across "6" ant. terminals with 300Ω in high side of signal generator output.	50MC (400∿ Mod.)	50-54 (center)	50MC	"	A14	"
9.	"	"	54MC	"	54MC	"	A15	Adjust for maximum output. Repeat steps 8 and 9 until no further improvement can be made.
10.	"	Across "10" ant. terminals with 300Ω in series with high side of signal generator output.	27MC (400∿ Mod.)	27-29.7 (clockwise)	27MC	"	A16	Adjust for maximum output.
11.	"	"	29MC	"	29MC	"	A17	Adjust for maximum output. Repeat steps 10 and 11 until no further improvement can be made.

RF ALIGNMENT

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
12.	300Ω carbon res.	Across "2" ant. terminals with 300Ω in series with high side of signal gen. output.	146MC (400∿ Mod.)	144-148 (counter clockwise)	146MC	Across voice coil	A18, A19	Adjust for maximum output.
13.	"	Across "6" ant. terminals with 300Ω in series with high side of signal gen. output.	52MC	50-54 (center)	52MC	"	A20, A21	"
14.	"	Across "10" ant. terminals with 300Ω in series with high side of signal gen. output.	28MC	27-29.7 (clockwise)	28MC	"	A22, A23	"



VOLTAGE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6AK5	0V	2.2VDC	0V	6.3VAC	142VDC	117VDC	2.2VDC		
V 2	12AT7	66VDC	-2.4VDC	0V	6.3VAC	6.3VAC	150VDC	0V	3VDC	0V
V 3	6BE6	0V	2.4VDC	6.3VAC	0V	260VDC	35VDC	0V		
V 4	6BJ6	0V	60VDC	6.3VAC	0V	260VDC	260VDC	60VDC		
V 5	6BJ6	0V	60VDC	6.3VAC	0V	260VDC	260VDC	60VDC		
V 6	6AL5	0V *	-.1VDC	0V	6.3VAC	.1VDC	0V	-.3VDC		
▲ V 7	6BJ6	77VDC	100VDC	6.3VAC	0V	250VDC	145VDC	100VDC		
♦ V 8	6BJ6	-.3VDC	0V	6.3VAC	0V	35VDC	30VDC	0V		
♦ V 9	6AL5	0V	0V	0V	6.3VAC	.2VDC	0V	-.2VDC		
V 10	6AU6	0V	1.6VDC	6.3VAC	0V	87VDC	70VDC	1.6VDC		
V 11	6060	1.1VDC	0V	250VDC	260VDC	0V	260VDC	6.3VAC	12VDC	
V 12	VR150	0V	0V	290VDC	0V	150VDC	60VDC	290VDC	0V	
V 13	5Y3GT	0V	290VDC	0V	290VAC	0V	290VAC	0V	290VDC	

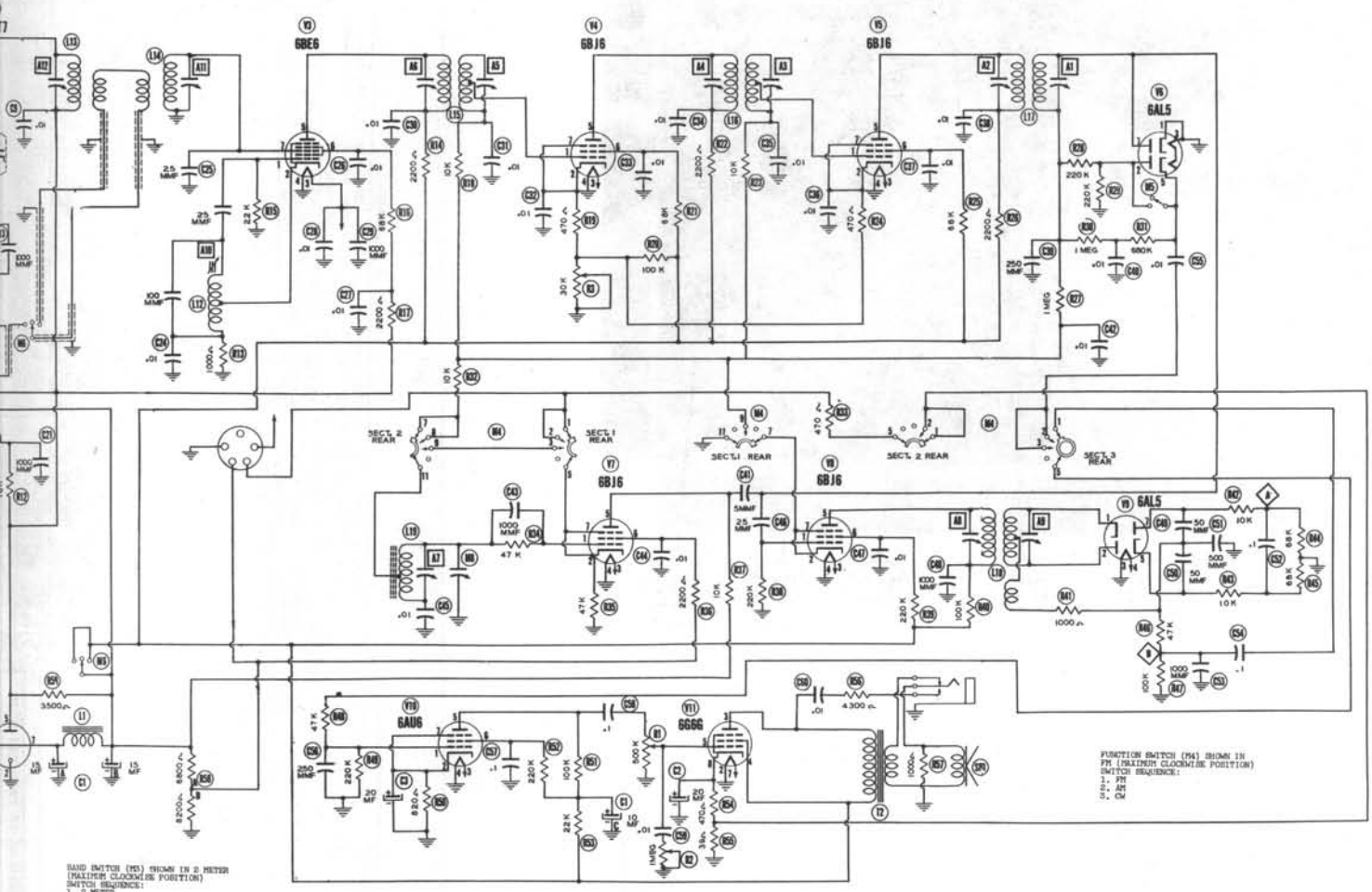
RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6AK5	15Ω	320Ω	0Ω	.1Ω	†10KΩ	†10.5KΩ	220Ω		
V 2	12AT7	†21KΩ	4.7KΩ	0Ω	.1Ω	.1Ω	†5.5KΩ	100KΩ	2.2KΩ	0Ω
V 3	6BE6	22KΩ	100Ω	.1Ω	0Ω	†2.2KΩ	†70KΩ	0Ω		
V 4	6BJ6	1.5Meg.	22KΩ	.1Ω	0Ω	†2.2KΩ	†66KΩ	22KΩ		
V 5	6BJ6	1.5Meg.	22KΩ	.1Ω	0Ω	†2.2KΩ	†66KΩ	22KΩ		
V 6	6AL5	0Ω	220KΩ	0Ω	.1Ω	2.5Meg	Inf.	560KΩ		
▲ V 7	6BJ6	90KΩ	47KΩ	.1Ω	0Ω	†10KΩ	†6.5KΩ	47KΩ		
♦ V 8	6BJ6	220KΩ	0Ω	.1Ω	0Ω	†100KΩ	†220KΩ	0Ω		
♦ V 9	6AL5	150KΩ	150KΩ	0Ω	.1Ω	80KΩ	Inf.	80KΩ		
V 10	6AU6	320KΩ	800Ω	.1Ω	0Ω	†125KΩ	†240KΩ	820Ω		
V 11	6060	39Ω	0Ω	†800Ω	†200Ω	1Ω	†200Ω	.1Ω	500Ω	
V 12	VR150	Inf.	0Ω	†0Ω	Inf.	†3.5KΩ	88KΩ	10Ω	Inf.	
V 13	5Y3GT	Inf.	15KΩ	Inf.	95Ω	Inf.	10Ω	Inf.	15KΩ	

† Measured from pin 8 of V13.
▲ Measured with function switch in CW position.
♦ Measured with function switch in FM position.

1. DC Voltage measurements are at 20,000 ohms per
measured at 1,000 ohms per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common ne
4. Line voltage maintained at 117 volts for voltage re
5. Nominal tolerance on component values makes pos
± 10% in voltage and resistance readings.
6. Volume control at maximum, no signal applied fe
ments.

A PHOTOFACT STANDARD NOTATION SCHEMATIC



THE COOPERATION OF THE MANUFACTURER OF THIS
RECEIVER MAKES IT POSSIBLE TO BRING YOU THIS SERVICE

1ST IF = 6.95 MC

2ND IF = 455 KC

1. DC Voltage measurements are at 20,000 ohms per volt; AC Voltages measured at 1,000 ohms per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Line voltage maintained at 117 volts for voltage readings.
5. Nominal tolerance on component values makes possible a variation of ± 10% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.